ENGINEERS:

You're a middle school or high school student and the summer lies before you, a long string of blank days on a calendar, and neither you nor your parents have a clue about what to do to fill in the time. If you are the kind of student who likes critical thinking, math and science or if you're just curious about how things are made, you might be a candidate for doing some research about engineering. This is a great way to learn about what engineering means (according to most dictionaries it means to lay-out, construct or guide the course of) and check out the various fields of engineering to see if any of them appeal to you. Engineers offer solutions to prob-

PROBLEM SOLVERS

lems. Civil engineers are responsible for roads, dams and bridges; chemical engineers devise equipment and processes for manufacturing products such as gasoline, plastics, and paper. There are also mechanical, bio-medical, electronic, computer, nuclear, and environmental engineers, to name a few. Maybe you have dreamed about being a rocket scientist—that's just another name for aerospace engineer. For just about every interest there is an engineering field.

There are many web sites geared toward students of all ages who are interested in finding out more about engineering. The State of Utah gives career exploration information at http://careers.utah.gov/careers/ where you can compare wages and future growth outlook for specific engineering fields. Do an Internet search for engineering sites and you'll find many that are interactive, have lots of facts, and are a fun way to spend some time while learning about engineering. Tryengineering.org lets you search for accredited engineering degree programs throughout the world. It is geared toward students 8-18 and their parents, teachers and counselors. There are lesson plans for teachers, games, competitions, and projects, such as designing a roller coaster or a parachute.

A national day, Introduce a Girl to Engineering, held in February of each year, is sponsored by National Engineering Week Foundation, in conjunction with engineering societies and public and private businesses. Only 20 percent of engineering undergraduates and 10 percent of the engineering workforce are women. The web site (http://www.eweek.org/) endeavors to change the perception of the people that teach girls, and therefore girls themselves, that girls don't have math and science abilities and are not suited to study engineering. This organization's assessment is that girls have to believe they can be engineers before they can become engineers. To further that premise, the Foundation sponsors a week that brings girls and role models together. There are links to engineering sites of interest to students of all ages.

Check out www.engineeryourlife.org, it lists reasons for girls to choose engineering as a career. Profiles of engineers, stories about engineering feats, and lists of classes to take in high school can be found at www.engineergirl.org.

Once you've found out about engineering, consider signing up for a summer engineering camp. Locally, Westminster College offers a robotics camp for 13-18 year-old students. Clark Planetarium offers a telescope building camp.

University of Utah College of Engineering hosts HI-GEAR (Girls Engineering Abilities Realized) featuring team projects for girls in grades 9-12. They also sponsor JETS (Junior Engineering Technical Society at http://www.jets.org/) which features a national competition for Utah's math and science students.

Engineering jobs require at least a bachelor's degree. Look at http://www.abet.org or collegedata.com for directories of schools that offer engineering programs.

Once you've done some research about specific fields, spent time participating in a camp and earned an engineering degree, maybe you'll design an eco-friendly mass transit system, clean fuel for aircraft or help reverse global warming!

THERE ARE MANY TYPES OF ENGINEERS, INCLUDING CIVIL, CHEMICAL, MECHANICAL, BIOMEDICAL AND ENVIRONMENTAL.